

-State Species Abstract-
-Wyoming Natural Diversity Database-

PHLOX OPALENSIS
OPAL PHLOX
Family: Polemoniaceae

Status:

US Fish & Wildlife Service: None (Former C2 candidate for listing under the Endangered Species Act.)

Agency Status: None.

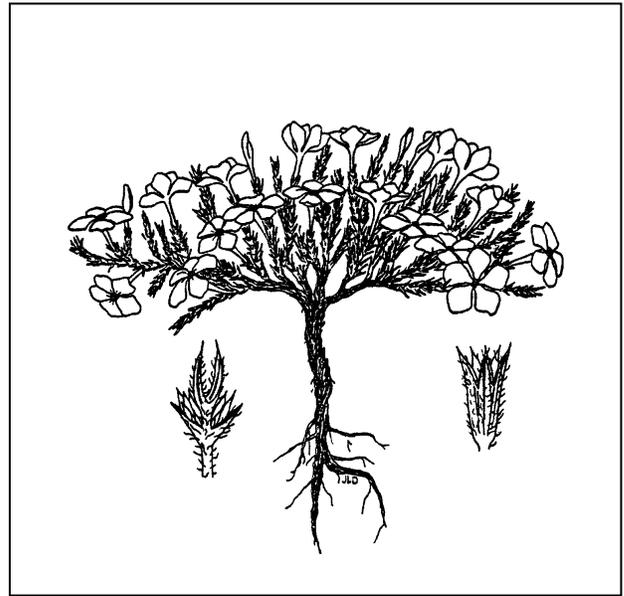
Heritage Rank:

Global: G3 State: S3 (Watch)

Range Context: Regional endemic/ Core
Wyoming Contribution Rank: Very High

Description: Opal phlox is a perennial herb that forms loose mats of semi-erect stems 7 cm or less high. Internodes of the stem are elongate, whitish-transparent (hyaline), and have long, crinkly, spreading hairs. The leaves are 2-10 mm long, less than 1 mm wide, abruptly tapered to a sharp tip, and crinkly-hairy at the base. Flowers are white (occasionally pink) and strongly aromatic. The corolla is 12-15 mm wide when fresh and has 5 wedge-shaped lobes. Dried herbarium material may have corollas as small as 10 mm in diameter. The calyx is 6-8 mm long and crinkly-pubescent with 5 sharp-tipped, triangular to linear lobes that are typically shorter than the fused calyx tube (Fertig 1996).

Similar Species: *Phlox muscoides* is densely matted, has shorter, woolly leaves, and smaller flowers (5-10 mm wide when fresh). *P. hoodii* has a more congested growth form, lacks elongate internodes, and has smaller flowers that rarely exceed 8 mm in diameter. *P. andicola* typically has longer and narrower leaves that gradually taper to a sharp point and has papillate or rare short-hairy internodes. The “Uinta County” phase



Above: *Phlox opalensis* by Jane Dorn from Dorn (1992).

Below: *P. opalensis* by B. Heidel



of *P. andicola* has broad-based leaves with prominently thickened margins and coarser pubescence. *P. albomarginata* and *P. pungens* have broader leaves with thickened leaf margins and are prominently glandular (Fertig et al. 1994, Dorn 2001).

Flowering/Fruiting Period: Late April to early June.

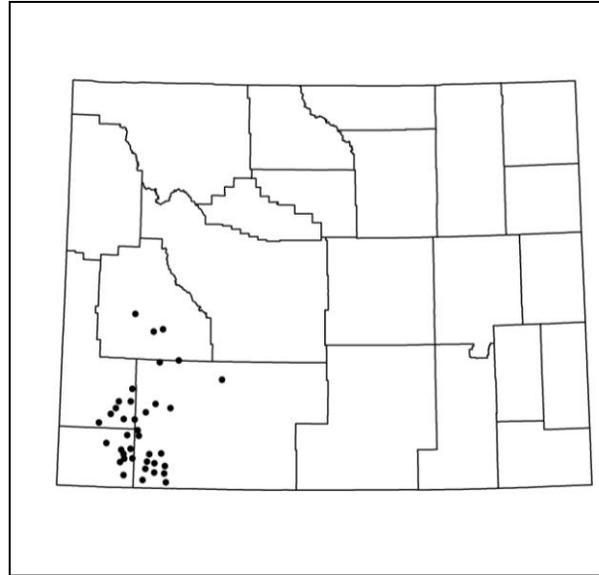
Distribution: Regional endemic of the Green River and Bridger basins and the adjacent foothills of the Uinta Mountains in southwestern Wyoming (Fremont, Lincoln,

Sublette and Sweetwater Cos) and northeastern Utah (Daggett Co.).

Habitat: Typically occurs in open desert shrub or cushion plant communities on fine-textured clay-shale flats, steep slopes, and rims. These sites often have a surface layer of chert or reddish sandstone gravel that accounts for 50% or more of the total cover. It is most often associated with vegetation dominated by *Atriplex gardneri* and *Chrysothamnus nauseosus*, although populations may also occur infrequently in sites dominated by *Artemisia tridentata* var. *wyomingensis*, *Sarcobatus vermiculatus*, *Artemisia pedatifida*, *Kochia americana*, or *Sphaeromeria argentea*. Elevation ranges from 6200-7700 feet. This species is notably absent from sites with dense cover of sagebrush or graminoids and on barren clay slopes lacking a surface cover of gravel. It is largely replaced by *P. hoodii* on sandier soils and by *P. muscoides* on more calcareous sites (Fertig 1996).



Above: *Phlox opalensis* habitat on shaley flats and slopes of badlands hills, Sweetwater County, Wyoming. Photo by Walter Fertig.



Wyoming distribution of *Phlox opalensis*.

Occurrences in Wyoming: Currently known from 38 extant occurrences in Wyoming, five of which are based on reports warranting verification. Prior to 1995, it was only known from 8 occurrences (all in Wyoming), one of which was historical.

Abundance: Census data from 1995 surveys suggest a minimum population size of 1,300,000 plants. Individual colonies are often quite extensive and locally dominant.

Trends: Trend data are lacking for most sites, but populations appear to be stable.

Protection status: A portion of one occurrence is found within Seedskafee National Wildlife Refuge. Two of the largest known populations are within the Twin Buttes and Black Mountain Wilderness Study Areas. One population is within the proposed extension of the Pine Creek ACEC. Colonies in the foothills of Sage Creek and Hickey Mountains could be protected within the TES Plant ACECs for *Thelesperma pubescens* if the boundaries were extended.

Threats: This species is protected from most threats due to its steep, shale slope habitat. Lowland populations are potentially threatened by disturbance associated with natural gas development (roads, pipelines, and well pads). Damage by recreational vehicles is also a potential threat. Overall, however, these threats are low and the plant shows great resiliency.

Managed Areas: Found on lands managed by the BLM Kemmerer, Pinedale, and Rock Springs Field Offices, Ashley National Forest (Flaming Gorge National Recreation Area) and Seedskaadee National Wildlife Refuge.

References:

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Author: Walter Fertig

Update Author: B. Heidel

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